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EXAMINER
JEAN GILLES, JUDE

ART UNIT	PAPER NUMBER
2143	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/084,038	SCHIAVONE ET AL.
	Examiner	Art Unit	
	Jude J. Jean-Gilles	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 March 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3,4,6,12-26,30-76 and 78-81</u> is/are pending in the application.

    4a) Of the above claim(s) <u>1,3-5,15,47-51 and 62-76</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>12-14,16,18,21,30-38,44-46,52,53,55,58-61,78 and 80</u> is/are rejected.

7)☒ Claim(s) <u>22-26, 56-57, 79, and 81</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 03/05/2007.

Response to Amendment

1.   This action is responsive to the application filed on 02/26/2002, and a

Reply received on 03/05/2007. The Examiner thank s the applicants for electing to

prosecute the subject matter of group II : Claims 12-14, 16-26, 30-46, 52, 53, 55-61,

and 78-81. The Office acknowledges the fact that applicants disagree with and traverse

the restriction requirement, however disagrees with applicants mischaracterizations as

these inventions are independent or distinct for the reasons given in the

correspondence dated 03/05/2007. As noted, there would be a serious burden on the

examiner if restriction is not required because the inventions have acquired a separate

status in the art in view of their different classification, and field of search (see MPEP §

808.02), restriction for examination purposes as indicated is proper.

Claims *1,3-5,15,47-51* and 62-76 are withdrawn from consideration. Claims 12-

14, 16-26, 30-46, 52, 53, 55-61, and 78-81 are examined in this application and

represent a method and system for "controlling distribution of network communications".

Response to Arguments

2.   Applicant's arguments with respect to claims 12-14, 16-26, 30-46, 52, 53,

55-61, and 78-81 have been carefully considered, but are not deemed fully persuasive.

Applicant's arguments are deemed moot in view of the following new ground of rejection

as explained here below necessitated by applicants arguments submitted on 11/20/2006.

Examiner notes that no new matter has been added and that the elected claims are supported by the application as filed. However, applicant has failed in presenting claims and drawings that delineate the contours of this invention as compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

In response to Applicant's arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims** 12-14, 16, 18, 21, 30-38, 44-46, 52, 53, 55, 58-61, 78, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata US

Patent No. 6,334,140 B1 in view of Zellner et al (Zellner), U.S. Patent No:

7,050,445 B1.

Regarding **claim 12**, The combination Kawamata discloses the method for

controlling distribution of network communications via a communications network (fig.

1), the method comprising:

sampling and classifying a subset of network communications according to sender in

order to determine, for every sender, a level of network communications having a

certain characteristic (col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67);

identifying a plurality of subsequent network communications, each being intended for

delivery to a respective recipient and each having a respective sender; determining a

priority value for each of the plurality of subsequent network communications as a

function of the level previously determined for the communication's sender(col. 6, lines

47-67; col. 7, lines 1-18, continue lines 45-67); and

causing delivery of the plurality of subsequent network communications to the

respective recipients in an order corresponding to the respective priority values, wherein

certain of the plurality of network communications having a relatively high priority value

are delivered before certain of the plurality of network communications having a

relatively low priority value(col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

However, Kawamata does not specifically disclose sampling and classifying a subset

communications as in details as claimed in the invention. In the same field of

endeavor, Zellner teaches "*To provide dynamic quality of service adjustments, many*

applications can be configured to operate at several different priority levels according

to the relative importance of a particular transaction to a user. As an example, a

user may request to send an e-mail at a higher priority than the default level,

when the e-mail contains time sensitive information and the delivery time is

critical. By charging users for access to the network according to the priority level for

each transaction, the users have a financial incentive to reserve designating high

priority transactions for applications for which quick transmission is important. The

priority levels can also be associated with control mechanisms in other networks, both

wired and wireless, to provide end-to-end quality of service capability" (see Zellner;

column 4, lines 21-38).

According it would have been obvious for an ordinary skill in the art to

incorporate the group categorizing (queuing by priority levels) of Kawamata with the

teachings of Zellner for the purpose of allocating network access for transactions in a

wireless network according to the priority levels associated with the transactions in

order to avoid bottlenecks occurring during busy periods that can slow down

communications because there are a limited number of access points into the wireless

network as stated by Zellner, column 1, lines 63-67, continue col. 2, lines 12-18. By this

rationale claim 12 is rejected.

Regarding **claim 13**, The combination Kawamata-Zellner discloses a method for

controlling distribution of network commmunications via a communications network

(figs. 1, 3-5), the method comprising:

sampling and classifying a subset of network communications according to sender in

order to determine, for every sender, a level of network communications having a

certain characteristic (see Zellner; column 4, lines 21-38);

identifying a plurality of subsequent network communications, each being intended for

delivery to a respective recipient and each having a respective sender; determining a

priority value for each of the plurality of subsequent network communications as a

function of the level previously determined for the communication's sender(col. 6, lines

47-67; col. 7, lines 1-18, continue lines 45-67); and

delaying allocation of a network connection for a subsequent network communication

having a relatively low priority value until after allocation of the network connection for

another subsequent network communication having a priority value higher than the

relatively low priority value.

Regarding **claim 14**, The combination Kawamata-Zellner discloses a method for

controlling distribution of network communications via a communications network (figs.

1, 3-5), the method comprising:

and classifying a subset of network communications according to network paths over

which the communications travel in order to determine, for every network path, a level

of network communications having a certain characteristic (see Zellner; column 4, lines

21-38);

identifying a plurality of subsequent network communications, each having a

respective network path ;determining a priority value for each of the plurality of

subsequent network communications as a function of the level previously determined

for its respective network path (col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-

67); and

selectively delaying, allocation of a network connection for delivering a network

communications having a certain path until after utilization of network resources no

longer exceeds a predetermined threshold.

Regarding **claim 16**, The combination Kawamata-Zellner discloses the method

for controlling distribution of network communications via a communications network

(figs. 1, 3-5), the method comprising:

sampling network communications received from a certain sender to determine a level

of network communications having a certain characteristic (see Zellner; column 4, lines

21-38);

determining a priority level as a function of the level; and

assigning the priority level to other network communications received from the

certain sender (see Kawamata, col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-

67).

Regarding **claim 18**, The combination Kawamata-Zellner discloses the method of claim

16, wherein the characteristic comprises undeliverability of network communication to a

respective receiver (col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 21**, The combination Kawamata-Zellner discloses an apparatus

for controlling distribution of network communications via a communications network

(figs. 1, 3-5), the apparatus comprising;

means for identifying a respective priority for each of a plurality of network

communications (see Kawamata, col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67);

means for allocating network connections for delivery of network communications, said means being configured to provide a prioritization effect whereby connections are allocated for delivery of said plurality of network communications in an order corresponding to respective priorities of said plurality of network communications, a network communication having a relatively high priority being allocated a network connection before another network communication having a relatively low priority (col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 30**, The combination Kawamata-Zellner discloses a network appliance for controlling distribution of network communications via a communications network (figs. 1, 3-5), the network appliance comprising;

a heuristic engine for identifying a network path for each of a plurality of network communications received by the network appliance, and for sampling a subset of the plurality of network communications, each network communication of the subset having a common network path (see Zellner; column 4, lines 21-38);

a scanner for scanning each network communication of the subset and for determining a value for a sender metric for the network communications of the subset (fig. 3, item 287; column 8, lines 14-67);

a rules database storing rules for delivering network communications, at least one of the rules correlating the value to a priority level; and

a connection processor for allocating network connections for delivery of

network communications, the connection processor being configured to allocate

network connections for certain network communications in an order of priority

corresponding to the certain network communications' respective priority levels,

wherein each network communication's respective priority level is assigned

according to its respective network path, and the priority level assigned to the subset

of network communications having an identical network path (see Kawamura; col. 6,

lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 31**, The combination Kawamata-Zellner discloses the network

appliance of claim 30, further comprising a notification module, the notification module

being capable of communicating to another network appliance (see Kawamura; col. 6,

lines 47-67; col. 7, lines 1-18, continue lines 45-67)

Regarding **claim 32**, The combination Kawamata-Zellner discloses the network

appliance of claim 30, wherein the notification module is configured to communicate via

the communications network (fig. 4A, item 410; column 5, lines 42-67; column 6, lines 1-

57).

Regarding **claim 33**, The combination Kawamata-Zellner discloses the network

appliance of claim 31, wherein the notification module is configured to communicate

priority level information for a corresponding network path (see Kawamura; col. 6, lines

47-67; col. 7, lines 1-18, continue lines 45-67)

Regarding **claim 34**, The combination Kawamata-Zellner discloses the network

appliance of claim 31 , wherein the notification module is configured to communicate a

preference to delay network communications (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 35**, The combination Kawamata-Zellner discloses the network appliance of claim 31 , wherein the notification module is configured to communicate a request to reduce a volume of network communications directed to the network appliance (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67)

Regarding **claim 36**, The combination Kawamata-Zellner discloses the network appliance of claim 30, wherein the sampling is performed according to a predetermined sampling rate (see Zellner; column 4, lines 21-38).

Regarding **claim 37**, The combination Kawamata-Zellner discloses the network appliance of claim 36, wherein the predetermined sampling rate is stored in the rules database (see Zellner; column 4, lines 21-38).

Regarding **claim 38**, The combination Kawamata-Zellner discloses the network appliance of claim 30, wherein the sampling rate is varied over time (see Zellner; column 4, lines 21-38).

Regarding **claim 44**, The combination Kawamata-Zellner discloses the network appliance of claim 30, wherein the rules database further comprises a prescribed delay corresponding to the priority level (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67)

Regarding **claim 45**, The combination Kawamata-Zellner discloses the network appliance of claim 44, wherein the prescribed delay comprises a fixed period of time (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 46**, The combination Kawamata-Zellner discloses the network

appliance of claim 44, wherein the prescribed delay comprises delay until network

resource availability reaches a certain level (see Kawamura; col. 6, lines 47-67; col. 7,

lines 1-18, continue lines 45-67).

Regarding **claim 52**, The combination Kawamata-Zellner discloses a system for

controlling distribution of network communications via a communications network (figs.

1, 3-5), the system comprising

a mail server operating within an internal communications network for distribution of

incoming network communications received via an external communications network

(see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67); and

a network appliance logically positioned between the mail server and the external

communications network, the network appliance being specially configured to

selectively allocate network connections of the internal communications network for

delivery of the incoming network communications to the mail server, the network

appliance being further configured to allocate network connections to the incoming

network communications in a prioritized manner determined according to an incoming

network communication priority value corresponding to the communication's sender,

wherein the priority value is determined based on having previously sampled and

classified an initial subset of network communications according to sender in order to

determine, for every sender, a level of network communications having a certain

characteristic.

Regarding **claim 53**, The combination Kawamata-Zellner discloses the method of

claim 52, wherein the prioritized manner provides for allocation of resources to an

incoming network communication that provides for delivery of higher priority network

communications before lower priority network communications (see Kawamura; col. 6,

lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 55**, The combination Kawamata-Zellner discloses a network

appliance for controlling distribution of network communications via a communications

network (figs. 1, 3-5), the network appliance receiving incoming network communication

connections, the network appliance being capable of allocating network connections for

delivering network communications, the network appliance selectively allocating

network connections for each of a plurality of network communications in an order to

achieve a prioritization effect according to priority levels of the incoming network

communications (fig. 2, item 230; column 10, lines 32-63; column 10, lines 44-62); [see

Walker; column 5, lines 45-56].

Regarding **claim 58**, The combination Kawamata-Zellner discloses the network

appliance of claim 55, the prioritization effect comprising delaying allocation of a

network connection for a given path to meet predetermined preference criteria (see

Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 59**, The combination Kawamata-Zellner discloses the network

appliance of claim 55, wherein the predetermined preference criteria provides that

network communications from a certain path should not be delivered if utilization of network resources presently exceeds a predetermined threshold (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 60**, The combination Kawamata-Zellner discloses the network appliance of claim 55, wherein the predetermined preference criteria provides that network communications from a certain sender should not be delivered if utilization of network resources presently exceeds a predetermined threshold (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 61**, The combination Kawamata-Zellner discloses the network appliance of claim 55, wherein the predetermined preference criteria provides that network communications having a certain priority level should not be delivered if utilization of network resources presently exceeds a predetermined threshold (see Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

Regarding **claim 78**, The combination Kawamata-Zellner discloses a method for controlling distribution of network communications via a communications network (figs. 1, 3-5), the method comprising:

identifying a plurality of network communications, each having a respective priority level corresponding to the communication's sender, wherein the respective priority level is determined based on having previously sampled and classified an initial subset of network communications according to sender in order to determine, for every sender, a level of network communications having a certain characteristic;

allocating network connections for delivery of network communications to allocate

network connections as a function of a respective priority level of each of the

plurality of network communications.

Regarding **claim 80**, The combination Kawamata-Zellner discloses the method of

claim 78, wherein said allocating comprises delaying transmission of a certain network

communication having a first priority level until after transmission of another network

communication having a second priority level higher than the first priority level (see

Kawamura; col. 6, lines 47-67; col. 7, lines 1-18, continue lines 45-67).

5. **Claims 17, 19, 20, and 39-43** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kawamata and Zellner, further in view of Aronson et al

(Aronson), U.S. Patent No: 6,654,787 B1.

Regarding **claim 17**, the combination of teaches the invention substantially as

claimed. Kawamata-Zellner fully discloses the method of controlling distribution of claim

16. However, Kawamata-Zellner does not specifically disclose the method of claim 16,

wherein the characteristic comprises containing of a virus.

In the same field of endeavor, Aronson discloses "..a filter module in a

communication controller that performs a virus check on incoming email messages..."

[*see Aronson; column 5, lines 50-67*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at

the time the invention was made to have incorporated Aronson's teachings filtering

emails for virus, with the teachings of Kawamata-Zellner, for the purpose of "Client 110

can then insure that legitimate messages have not been inadvertently filtered by filter

module 3..." as stated by Aronson in lines 63-67 of column 8, continue on column 8,

lines 1-5. By this rationale **claim 17** is rejected.

Regarding claim 19, the combination of Kawamata-Zellner -Aronson

discloses the method of claim 16, wherein the characteristic comprises

characterization of network communication as spam [see Aronson in lines 63-67

of column 8, continue on column 8, lines 1-5].

Regarding claim 20, the combination of Kawamata-Zellner -Aronson discloses

the method of claim 19, wherein characterization of the network communication as

spam is determined according to a pattern matching technique [see Aronson in lines

63-67 of column 8, continue on column 8, lines 1-5].

Regarding claim 39, the combination of Kawamata-Zellner -Aronson discloses

the network appliance of claim 30, wherein the sender metric comprises a virus rate

indicating a percentage of the network communications of the subset that carry a virus

[see Aronson in lines 63-67 of column 8, continue on column 8, lines 1-5].

Regarding claim 40, the combination of Kawamata-Zellner -Aronson discloses

the network appliance of claim 30, wherein the sender metric comprises a delivery

success rate indicating the percentage of the network communications of the subset

that are delivered [see Aronson in lines 63-67 of column 8, continue on column 8, lines 1-5; col. 5, lines 50-67].

Regarding claim 41, the combination of Kawamata-Zellner -Aronson discloses the network appliance of claim 30, wherein the sender metric comprises a spam rate indicating a percentage of the network communications of the subset that are determined to be unwanted [see Aronson in lines 63-67 of column 8, continue on column 8, lines 1-5; col. 5, lines 50-67].

Regarding claim 42, the combination of Kawamata-Zellner -Aronson discloses the network appliance of claim 41 , wherein the determination of whether a certain network communication is unwanted is determined by content- based analysis [see Aronson in lines 63-67 of column 8, continue on column 8, lines 1-5; col. 5, lines 50-67].

Regarding claim 43, the combination of Kawamata-Zellner -Aronson discloses the network appliance of claim 41, wherein the determination of whether a certain network communication is unwanted is determined by pattern matching [see Aronson in lines 63-67 of column 8, continue on column 8, lines 1-5; col. 5, lines 50-67].

Allowable Subject Matter

6.   **Claims 22-26, 56-57, 79, and 81** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7.   Applicant's remarks and new claims necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE NON-FINAL.** The Examiner strongly anticipates a Final Rejection Office Action on the next response if amendments are not properly made to the claims to perhaps place them in condition for allowance.

Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

DAVID WILEY
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